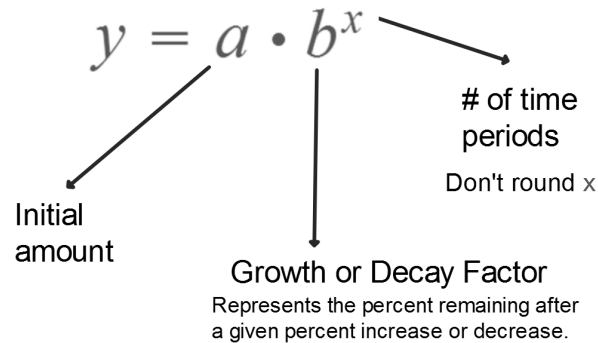


If an exponential equation models a real situation:



State the percent change each exponential equation represents.

1. $y = 450(0.704)^x$

$$\begin{array}{r} 0.704 \\ \times 100 \\ \hline 70.4\% \\ - 100\% \\ \hline -29.6\% \\ \hline 29.6\% \text{ decrease} \end{array}$$

2. $y = 0.97(1.0502)^x$

$$\begin{array}{r} 1.0502 \\ \times 100 \\ \hline 105.02\% \\ - 100\% \\ \hline +5.02\% \\ \hline 5.02\% \text{ increase} \end{array}$$

3. $y = 95(2)^x$

$$\begin{array}{r} 2 \times 100 = 200\% \\ - 100\% \\ \hline +100\% \\ \hline 100\% \text{ increase} \end{array}$$

4. $y = 72\left(\frac{36}{25}\right)^x$

$$\begin{array}{r} \frac{36}{25} = 1.44 \times 100 = 144\% \\ - 100\% \\ \hline +44\% \\ \hline 44\% \text{ increase} \end{array}$$

Does each represent growth or decay?

1. $y = 0.003(1.04)^x$
 $b > 1$ Growth

2. $y = 44,000\left(\frac{223}{232}\right)^{-x}$
 $\rightarrow \left(\frac{223}{232}\right)^{-x} = \left(\frac{232}{223}\right)^x$
 $b > 1$ Growth

You can now finish Hwk #1

Practice Sheet: Exponential Equations